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SPECIAL DATA COLLECTION SYSTEM (SDCS) EVENT REPORT,  
KURILE ISLANDS, 19 MAY 1975

K. J. Hill, et al

Teledyne Geotech

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**Kurile Islands, 19 May 1975**

**K.J. Hill, M.S. Dawkins, R.R. Baumstark, and M.D. Gillespie**  
**Alexandria Laboratories**

**Teledyne Geotech, 314 Montgomery Street, Alexandria, Virginia 22314**

**January 1976**

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SDCS EVENT REPORT NO. 56

Kurile Islands, 19 May 1975

This event report contains seismic data from the Special Data Collection System (SDCS), and other sources for the above event. Published epicenter information from seismic observations is:

	"P" Arrival	Origin Time	Lat.	Long.	$m_b$	$M_s$
NORSAR	22:53:01.3	22:42:14	49 N	156 E	5.7	N/A
LASA	22:52:19.0	22:42:14	50.3N	156.1E	5.7	N/A
PDE		22:42:14.2	49.7N	157.5E	5.4	N/A
Hagfors	22:53:02.0	22:42:33	53 N	156 E	5.7	4.4

Using SDCS stations, LASA and NORSAR, the epicenter location and magnitudes become

22:42:06.3 48.9N 156.8E 5.3 4.2

All SDCS stations were operational during this period.

Short-period signals associated with this event were recorded at WH2YK, HN-ME, RK-ON, FN-WV, LASA and NORSAR. CPSO short-period data were not recoverable from the analog tape. Horizontal SP channels at WH2YK, RK-ON, and HN-ME were rotated. Horizontal SP channels at FN-WV were not rotated because of unknown instrument orientation.\*

Long-period signals were recorded at WH2YK, RK-ON, FN-WV, ALPA, LASA and NORSAR. HN-ME did not record long-period signal arrivals and was not included in this report. CPSO long-period data were not recoverable from the analog tape. Horizontal LP channels at RK-ON and WH2YK were rotated. Horizontal LP channels at FN-WV were not rotated because of unknown instrument orientation.\* Validity of the ALPA, LASA and NORSAR long-period vertical beams is questionable and horizontal beams were not included because of program recovery problems.

Scaling factors on plots are millimicrons at 1 Hz (not corrected for instrument response) with the exception of LASA and NORSAR short-period plots. LASA SP scaling factors are millimicrons per inch. Scaling factors are not reported for NORSAR short-period.

- \* Due to operational problems the instrument hole lock was repositioned and the known orientation lost. Situation corrected 24 May 75 when the instrument was moved to a new borehole.

# STATION DESCRIPTION

SITE CODE	LOCATION	SITE COORDINATES DEG MN SECS	ELEVATION METERS	INSTRUMENTATION	
				SHORT-PERIOD	LONG-PERIOD
ALPA	Alaska	65 14 00.0 N 147 44 36.0 W	626	None	31300
CPSO	McMinnville, Tennessee	35 35 41.4 N 085 34 13.5 W	574	6480 V 7515 H	SL210 V SL220 H
FN-WV	Franklin, West Virginia	38 32 58.0 N 079 30 47.0 W	910	KS36000	KS36000
LASA	Billings, Montana	46 41 19.0 N 106 13 20.0 W	744	HS10	7505A V 8700C H
HN-NE	Houlton, Maine	46 09 43.0 N 067 59 09.0 W	213	18300	SL210 V SL220 H
NORSAR	Kjeller, Norway	60 49 25.4 N 010 49 56.5 E	379	HS10	7505A V 8700C H
RK-ON	Red Lake, Ontario	50 50 20.0 N 093 40 20.0 W	366	18300	SL210 V SL220 H
WH2YK	White Horse, Yukon	60 41 41.0 N 134 58 02.0 W	853	18300	SL210 V SL220 H

# HYPOCENTER DETERMINATION

INPUT FOR EVENT 19 MAY 75  
22:42:14.0 50.30N 150.100E 0KM.

STA.	ARRIVAL	RESIDUALS		DIST.	AZ.
		CAIC	REST		
WH2YK	22 49 35.5	0.0	0.1	39.2	46.2
IAC	22 52 19.0	0.3	0.9	60.7	51.6
RK-CN	22 52 38.3	-0.5	-0.8	63.8	41.7
NAC	22 53 01.3	-0.0	0.2	67.2	342.7
HM-ME	22 54 03.2	0.5	-0.1	77.6	30.1
FN-WV	22 54 14.7	-0.4	-0.3	79.7	41.5

## 67 HERRIN TRAVEL TIME TABLES

CFIGIN	LAT.	LCNG.	DEPTH (KM)	SDV	IT	STA
22:42:40.4	50.399N	157.450E	225. CAIC	0.4	6	6
22:42:06.3	48.891N	156.798E	0. REST	0.6	4	6

CAIC				REST			
	1	.	0		1	.	0
0	.	5		0	.	5	
0	0	.	0	0	0	.	0
.	.	.	.	.	.	.	.
0	0	.	0	0	0	.	0
0	.	0		0	.	0	
0	.	0		0	.	0	

CHI2 COVERAGE ELLIPSE; 95 PER CENT CONF..LEVEL, SDV= 0.99  
MAJOR 168.9KM. MINOR 41.9KM. AZ= 8 AREA= 22253 SQ.KM. REST

# DATA SUMMARY

INPUT FOR EVENT 19 MAY 75  
22:42:14.0 50.300N 150.100E 0KM.

STA.	PHASE	ARRIVAL		INST	FZR	A/T	MAGNITUDE		DIR	DIST
		TIME					MB	MS		
AIPA	IR	23	01 32.0	IPZ	23.0	12.		3.72		33.0
WH2YK	EP	22	49 35.5	SPZ	0.8	78.	4.99			39.2
WH2YK	IR	23	04 40.0	IPZ	22.0	39.		4.30		39.2
IAC	EP	22	52 19.0	AE	0.9	92.	5.53			60.7
IAC	IR	23	21 00.0	IPZ	20.0	23.		4.26		60.7
FK-CN	EP	22	52 38.3	SPZ	0.8	43.	5.32			63.8
FK-CN	IR	23	21 46.0	IPZ	22.0	35.		4.47		63.8
NAC	EP	22	53 01.3	AE	0.8	132.	5.82			67.2
NAC	IR	23	27 57.0	IPZ	19.0	17.		4.18		67.2
HN-ME	EP	22	54 03.2	SPZ	0.9	55.	5.34			77.6
FN-WV	EP	22	54 14.7	SPZ	0.7	36.	4.99			79.7
FN-WV	IR	23	31 36.0	IPZ	20.0	22.		4.36		79.7

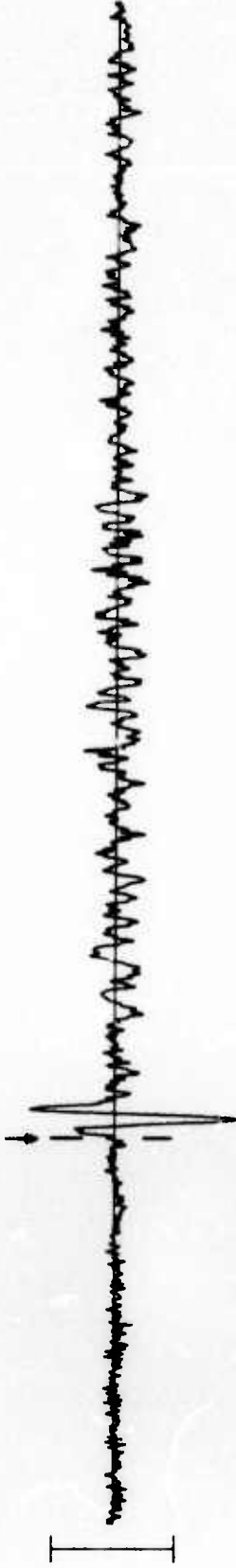
CRIGIN	LAT.	LCNG.	DEPTH (KM)	MAG	SDV	STA	LPMAG	LPSDV	IPSTA
22:42:40.4	50.399N	157.450E	225. CAIC	4.97	0.21	6	4.20	0.3	6
22:42:06.3	48.891N	156.798E	0. REST	5.33	0.32	6	4.22	0.3	6



WH2YK 19 MAY 75

22:49:35.5

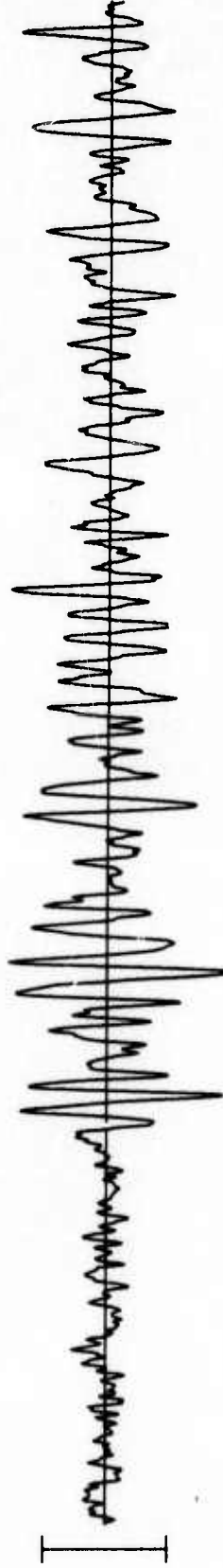
SPZ  
63.49 Mμ



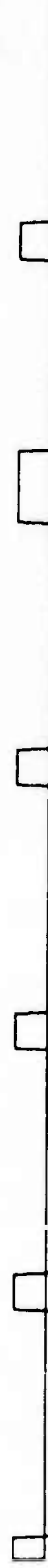
SPR  
32.71 Mμ



SPT  
18.19 Mμ



TIME



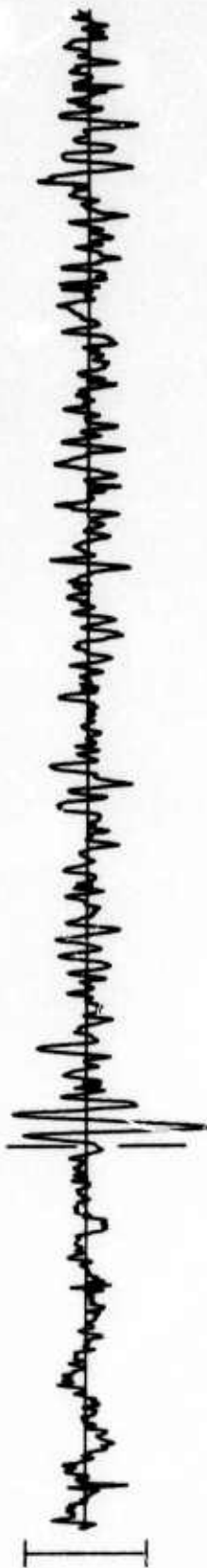
10 SEC

22:50:00

RK-ON 19 MAY 75

22:52:38.3

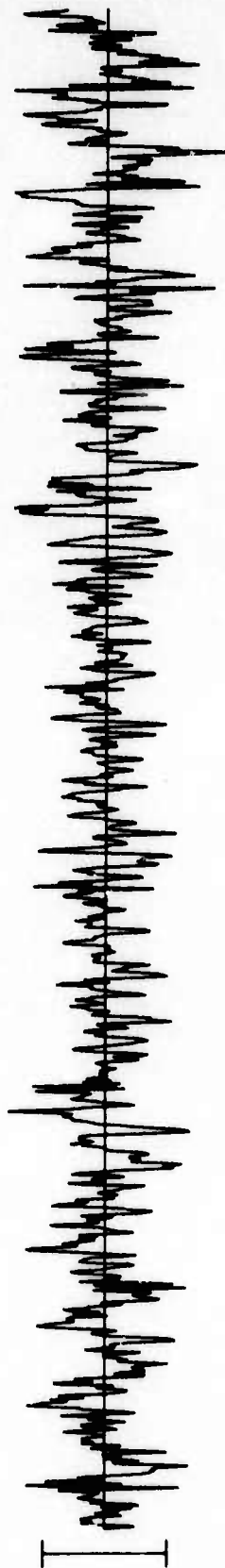
SPZ  
36.84 Mμ



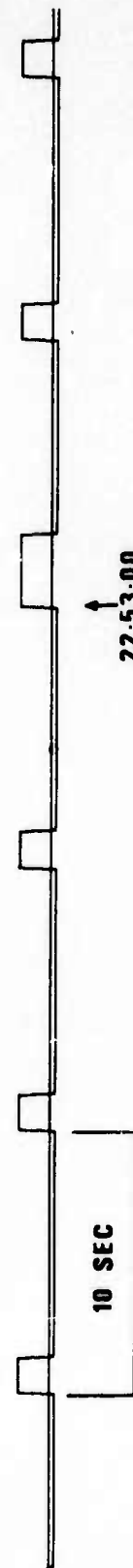
SPR  
8.56 Mμ



SPT  
3.16 Mμ



TIME

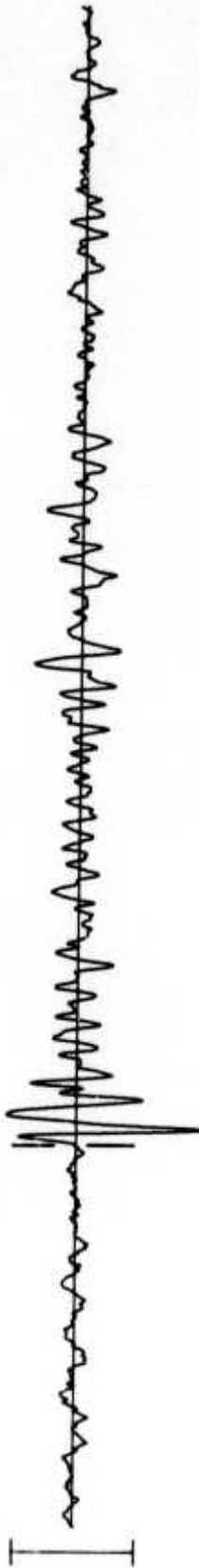


HN-ME 19 MAY 75

22:54:03.2



SPZ  
41.83 Mμ



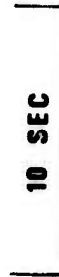
SPR  
10.31 Mμ



SPT  
6.65 Mμ



10 SEC

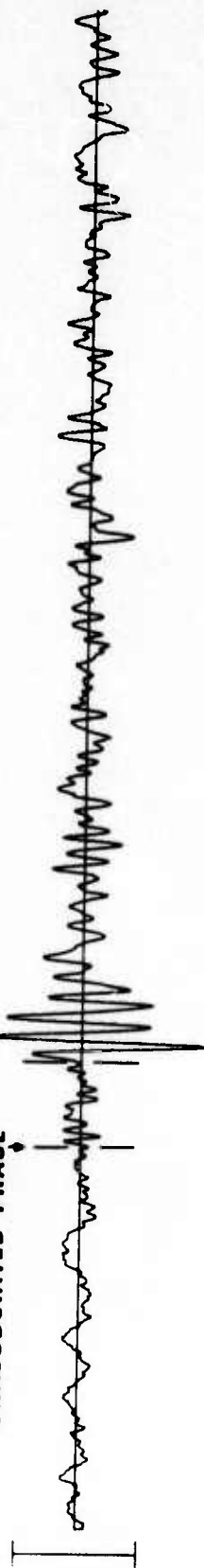


FN-WV 19 MAY 75

22:54:14.7

UNASSOCIATED PHASE

SPZ  
27.18 Mμ



SPR  
11.29 Mμ



SPT  
11.22 Mμ



TIME

10 SEC

22:54:30



# LASA

1 19 MAY 1975

2 22 42 14 50.3N 156.1E 330 C 5.7 221 KURILE ISLANDS

3 22 52 18.8 LAO P 109.4 1.0 16.3 60.2 313.0

EPX 96945

BP-B 0.6-2.0 HZ

ABN 16

22:52:08.8

AB 240

FAB 210

WAB 210

PAB1 160

PAB2 140

PAB3 150

PAB4 160

10 SEC

-9-

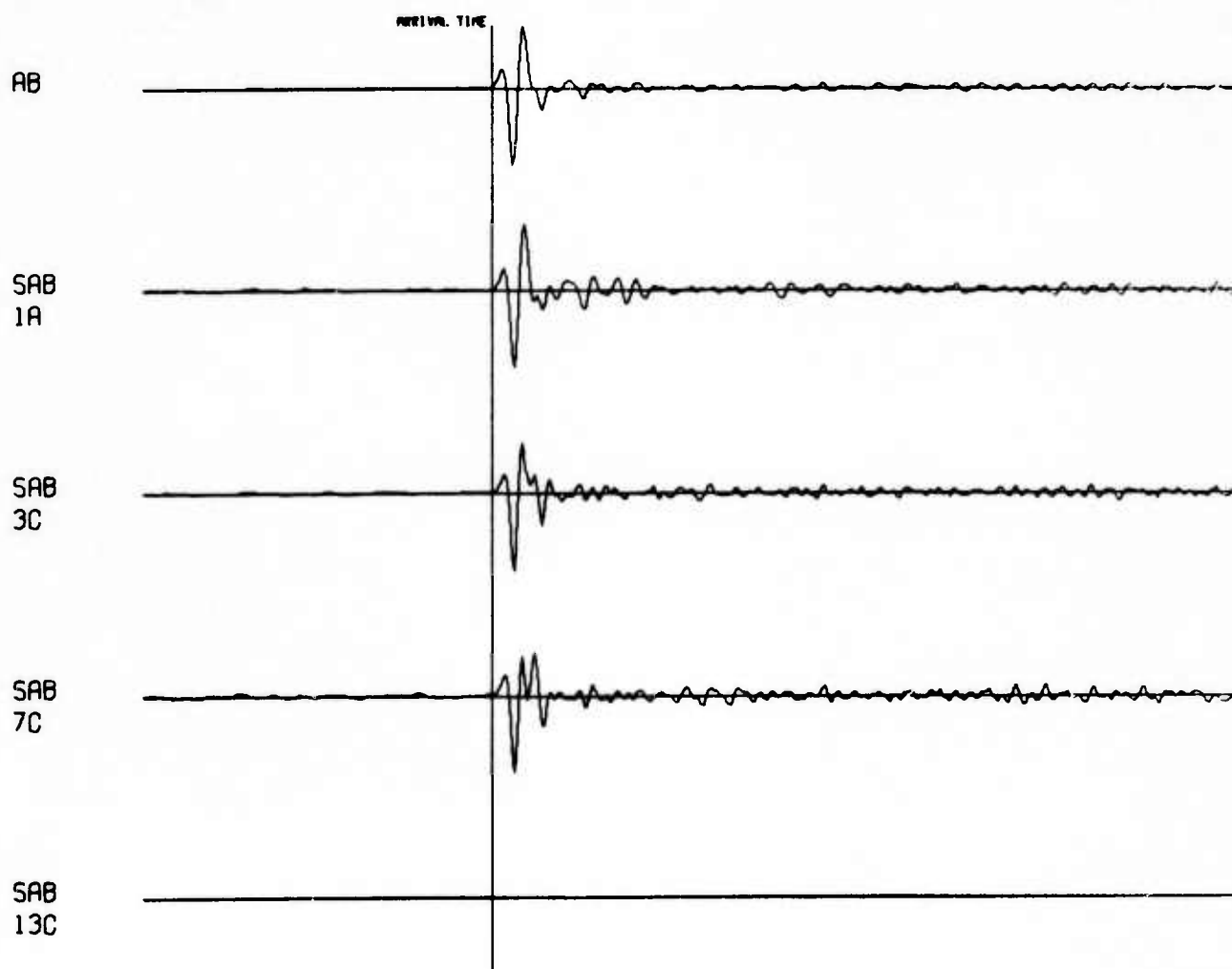
# NORSAR EVENT FILE

1975 MAY 19

EPX NO. 51000 ARR. 22.53.1.4 49.3N 156.2E 5.6'B 33KM

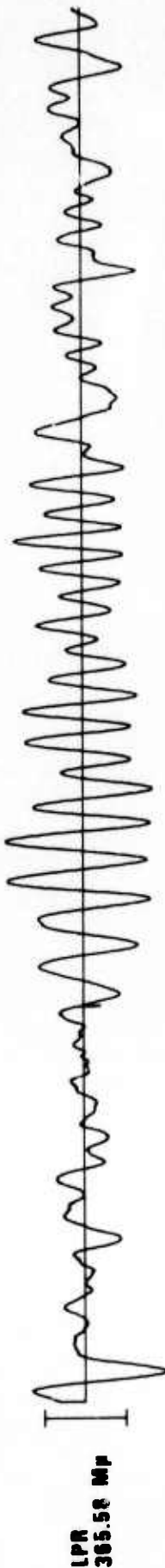
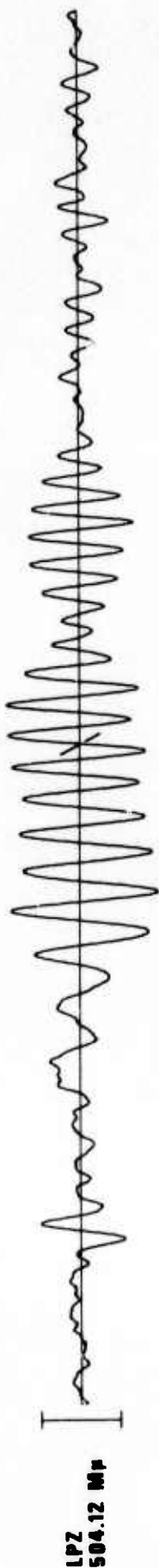
DIST = 66.7 AZI = 23.9 AMP = 78.6 PER = 1.1 UMETH 2

\_\_\_\_\_ = 5 SECONDS



WH2YK 19 MAY 75

23:04:40



RK-ON 19 MAY 75

23:21:46

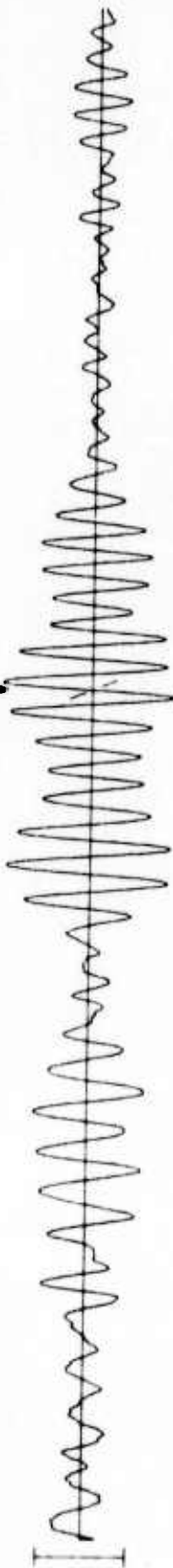




FN-WV 19 MAY 75

23:31:36

LPZ  
205.03 MHz



LPR  
425.07 MHz



LPT  
1530.43 MHz



TIME



2 MIN

23:30:00

# ARRAY LONG PERIOD VERTICAL BEAMS 19 MAY 75

